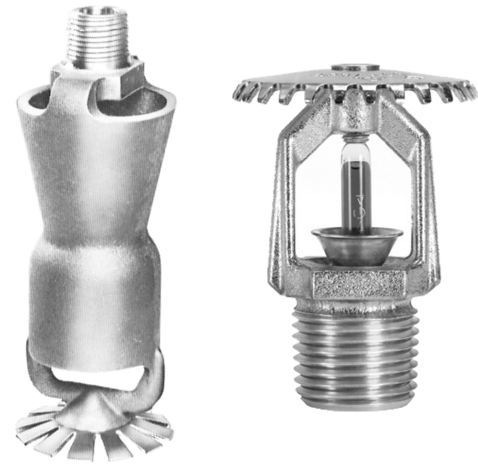


## Popular Sprinklers with AR-AFFF Concentrates – Listings and Approvals

Refer to the UL Listing Guide or FM Approval Guide for the most current listing information and historic product listings.

**Notes:**

1. For sprinklers matching AFFF Concentrates, see F-2007011, latest revision
2. E-85 blend based on 75% Denatured Ethanol / 25% Heptane
3. Sprinklers listed here are those accepted at the time of testing. Sprinkler manufacturers may have additional model designations that use the same body, orifice, and deflector. AHJs may require equivalency documentation from the sprinkler manufacturer for acceptance of models not shown in the published listings.



010341

### For Use With: ANSULITE A111-FP18 1x1 AR-AFFF

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: Tyco Fire Products</b>													
TY3151	1/2 in. NPT	5.6	Upright	UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	–	–	–	–
TY4131, TY4151	3/4 in. NPT	8	Upright	UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	–	–	–	–
TY4851	1/2 in. NPT	8	Upright	UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	–	–	–	–
TY5151	3/4 in. NPT	11.2	Upright	UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	–	–	–	–

### For Use With: ANSULITE A334-LV 3x3 AR-AFFF

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: Tyco Fire Products</b>													
TY313, TY315	1/2 in. NPT	5.6	Upright	FM	Hydrocarbons	0.20	(8.1)	–	–	6.0	(1.8)	35.5	(10.8)
					IPA	0.30	(12.2)						
					Ethanol	0.20	(8.1)						
					E-85	0.30	(12.2)						
				UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	–	–	–	–
					Alcohols	0.26	(10.6)	14.5	(1.00)				
					Ethanol	0.21	(8.6)	12.8	(0.88)				
					E-85	0.22	(9.0)	14.1	(0.97)				
TY323, TY325	1/2 in. NPT	5.6	Pendent	FM	Hydrocarbons	0.20	(8.1)	–	–	6.0	(1.8)	34.5	(10.5)
					IPA	0.30	(12.2)						
					Ethanol	0.30	(12.2)						

## For Use With: ANSULITE A334–LV 3x3 AR–AFFF (Continued)

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: Tyco Fire Products</b>													
TY 3231, TY 3251	1/2 in. NPT	5.6	Pendent	FM	E-85	0.30	(12.2)	—	—	6.0	(1.8)	34.5	(10.5)
				UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	—	—	—	—
					Alcohols	0.26	(10.6)	14.5	(1.00)	—	—	—	—
					Ethanol	0.21	(8.6)	12.8	(0.88)	—	—	—	—
					E-85	0.22	(9.0)	14.1	(0.97)	—	—	—	—
Ketones	0.30	(12.2)	25.4	(1.75)	—	—	—	—					
TY4131, TY4151	3/4 in. NPT	8	Upright	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	35.5	(10.8)
					IPA	0.30	(12.2)	—	—	—	—	—	—
					Ethanol	0.30	(12.2)	—	—	—	—	—	—
				UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.26	(10.6)	9.0	(0.62)	—	—	—	—
Ethanol	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
E-85	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
Ketones	0.34	(13.9)	15.9	(1.10)	—	—	—	—					
TY4231, TY4251	3/4 in. NPT	8	Pendent	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	34.5	(10.5)
					IPA	0.30	(12.2)	—	—	—	—	—	—
					Ethanol	0.30	(12.2)	—	—	—	—	—	—
				UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.26	(10.6)	11.0	(0.76)	—	—	—	—
Ethanol	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
E-85	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
Ketones	0.34	(13.9)	15.9	(1.10)	—	—	—	—					
TY4851	1/2 in. NPT	8	Upright	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	35.5	(10.8)
					IPA	0.30	(12.2)	—	—	—	—	—	—
					Ethanol	0.30	(12.2)	—	—	—	—	—	—
				UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.26	(10.6)	9.0	(0.62)	—	—	—	—
Ethanol	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
E-85	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
Ketones	0.34	(13.9)	15.9	(1.10)	—	—	—	—					
TY4951	1/2 in. NPT	8	Pendent	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	34.5	(10.5)
					IPA	0.30	(12.2)	—	—	—	—	—	—
					Ethanol	0.30	(12.2)	—	—	—	—	—	—
				UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.26	(10.6)	11.0	(0.76)	—	—	—	—
Ethanol	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
E-85	0.21	(8.6)	7.0		(0.48)	—	—	—	—				
Ketones	0.34	(13.9)	15.9	(1.10)	—	—	—	—					
TY5111	3/4 in. NPT	11.2	Upright	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	35.5	(10.8)
					IPA	0.40	(16.3)	—	—	—	—	—	—
					Ethanol	0.30	(12.2)	—	—	—	—	—	—
				UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	—	—	—	—
					Ethanol	0.32	(13.0)	7.2	(0.50)	—	—	—	—
E-85	0.32	(13.0)	7.2		(0.50)	—	—	—	—				
Ketones	0.40	(16.3)	11.2		(0.77)	—	—	—	—				

## For Use With: ANSULITE A334-LV 3x3 AR-AFF (Continued)

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: Tyco Fire Products (continued)</b>													
TY5131, TY5151	3/4 in. NPT	11.2	Upright	UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	—	—	—	—
					Ethanol	0.32	(13.0)	7.2	(0.50)				
					E-85	0.32	(13.0)	7.2	(0.50)				
					Ketones	0.40	(16.3)	11.2	(0.77)				
TY5211	3/4 in. NPT	11.2	Pendent	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	34.5	(10.5)
					IPA	0.40	(16.3)						
					Ethanol	0.30	(12.2)						
				UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.36	(14.7)	9.5	(0.66)				
					Ethanol	0.32	(13.0)	7.2	(0.50)				
					E-85	0.32	(13.0)	7.2	(0.50)				
TY5231, TY5251	3/4 in. NPT	11.2	Pendent	UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.36	(14.7)	9.5	(0.66)				
					Ethanol	0.32	(13.0)	7.2	(0.50)				
					E-85	0.32	(13.0)	7.2	(0.50)				
					Ketones	0.40	(16.3)	11.2	(0.77)				
TY5811	1/2 in. NPT	11.2	Upright	FM	Hydrocarbons	0.30	(12.2)	—	—	6.0	(1.8)	35.5	(10.8)
					IPA	0.40	(16.3)						
					Ethanol	0.30	(12.2)						
Model B1	1/2 in. NPT	3	Upright, Pendent	UL	Hydrocarbons	0.16	(6.5)	30.0	(2.07)	—	—	—	—
					Alcohols	0.16	(6.5)	30.0	(2.07)				
					Ethanol	0.16	(6.5)	30.0	(2.07)				
					E-85	0.16	(6.5)	30.0	(2.07)				
<b>Sprinkler Manufacturer: The Viking Corporation</b>													
VK100	1/2 in. NPT	5.6	Upright	UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	—	—	—	—
					Alcohols	0.26	(10.6)	9.5	(0.66)				
					Ethanol	0.21	(8.6)	7.0	(0.48)				
					Ketones	0.30	(12.2)	25.9	(1.79)				
VK102	1/2 in. NPT	5.6	Pendent	UL	Alcohols	0.26	(10.6)	9.5	(0.66)	—	—	—	—
					Ethanol	0.21	(8.6)	12.8	(0.88)				
					Ketones	0.39	(15.9)	42.7	(2.94)				
VK910	1/2 in. NPT	5.6	Pendent	UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	—	—	—	—
VK200	1/2 in. NPT	8	Upright	UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.29	(11.8)	9.5	(0.66)				
					Ethanol	0.21	(8.6)	7.0	(0.48)				
					Ketones	0.34	(13.9)	15.8	(1.09)				
VK202	1/2 in. NPT	8	Pendent	UL	Hydrocarbons	0.22	(9.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.34	(13.9)	15.8	(1.09)				
					Ethanol	0.30	(12.2)	12.4	(0.85)				
					Ketones	0.40	(16.3)	22.0	(1.52)				

**Note:** The converted values in this document are provided for reference only and do not reflect an actual measurement.

ANSUL, ANSULITE, and the product names listed in this material are trademarks and/or registered trademarks. Unauthorized use is strictly prohibited.

## For Use With: ANSULITE A334–LV 3x3 AR–AFFF (Continued)

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: The Viking Corporation (continued)</b>													
VK530	3/4 in. NPT	11.2	Upright	FM	Hydrocarbons	0.40	(16.3)	—	—	6.0	(1.8)	35.5	(10.8)
					IPA	0.40	(16.3)						
					Ethanol	0.30	(12.2)						
				UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.36	(14.7)	8.7	(0.60)				
					Ethanol	0.32	(13.0)	7.2	(0.50)				
					Ketones	0.40	(16.3)	11.2	(0.77)				
VK536	3/4 in. NPT	11.2	Pendent	UL	Hydrocarbons	0.32	(13.0)	7.0	(0.48)	—	—	—	—
					Alcohols	0.36	(14.7)	9.1	(0.63)				
					Ethanol	0.32	(13.0)	7.2	(0.50)				
					Ketones	0.36	(14.7)	9.1	(0.63)				
VK580	3/4 in. NPT	16.8	Upright	UL	Hydrocarbons	0.47	(19.2)	7.0	(0.48)	—	—	—	—
					Alcohols	0.53	(21.6)	8.8	(0.61)				
					Ethanol	0.48	(19.6)	7.2	(0.50)				
					Ketones	0.53	(21.6)	8.8	(0.61)				

## For Use With: ANSULITE A364 3% AR–AFFF

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: Grinnell Fire Protection Systems Co.</b>													
Model F950	1/2 in. NPT	5.6	Upright, Pendent	UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	—	—	—	—
<b>Sprinkler Manufacturer: Reliable Sprinkler Corp.</b>													
Model G	1/2 in. NPT	5.6	Upright, Pendent	UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	—	—	—	—
<b>Sprinkler Manufacturer: Automatic Sprinkler Corp.</b>													
Model F	1/2 in. NPT	5.6	Upright, Pendent	UL	Hydrocarbons	0.16	(6.5)	7.0	(0.48)	—	—	—	—

## For Use With: ANSULITE A364 6% AR–AFFF

Sprinkler Head	Connection	K-Factor	Orientation	Agency Approval	Fuel	Minimum Application Rate		Minimum Inlet Pressure		Minimum Installation Height		Maximum Installation Height	
						gpm/ft <sup>2</sup>	(Lpm/m <sup>2</sup> )	psi	(bar)	ft	(m)	ft	(m)
<b>Sprinkler Manufacturer: Reliable Automatic Sprinkler Co. Inc.</b>													
Model G	1/2 in. NPT	5.6	Upright	UL	Alcohols	0.26	(10.6)	19.5	(1.34)	—	—	—	—
					Ketones	0.26	(10.6)	19.5	(1.34)				
			Pendent	UL	Alcohols	0.26	(10.6)	19.5	(1.34)	—	—	—	—
					Ketones	0.26	(10.6)	19.3	(1.33)				
<b>Sprinkler Manufacturer: Grinnell Mfg. (UK) Ltd</b>													
Model A	1/2 in. NPT	Standard Orifice	Upright	UL	Alcohols	0.26	(10.6)	19.5	(1.34)	—	—	—	—
					Ketones	0.26	(10.6)	19.5	(1.34)				
			Pendent	UL	Ketones	0.26	(10.6)	19.5	(1.34)	—	—	—	—